

IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims

- 1-2. (Canceled).
3. (Previously Presented) The acoustic coding apparatus according to claim 21, wherein the base layer coding section encodes the input signal using a code excited linear prediction coding.
4. (Canceled).
5. (Previously Presented) The acoustic coding apparatus according to claim 21, wherein the enhancement layer coding section transforms the residual signal from the time domain to the frequency domain using a modified discrete cosine transform.
6. (Previously Presented) The acoustic coding apparatus according to claim 5, wherein the enhancement layer coding section encodes only part of a band, shown by the domain information, of the residual signal transformed to the frequency domain.
7. (Previously Presented) The acoustic coding apparatus according to claim 5, further comprising a perceptual masking section that calculates perceptual masking expressing an

amplitude value which does not affect auditory perception, wherein the enhancement layer coding section does not regard signals in the perceptual masking as coding targets.

8. (Previously Presented) The acoustic coding apparatus according to claim 7, wherein the enhancement layer coding section calculates a difference between the perceptual masking and the residual signal, regards a residual signal for which the difference is relatively large as a coding target and encodes positions in the time domain and the frequency domain in which the residual signal exists on the two dimensional plane.

9-10. (Canceled).

11. (Previously Presented) The acoustic decoding apparatus according to claim 22, wherein the base layer decoding section decodes the base layer coded code using code excited linear prediction coding.

12-20. (Cancelled).

21. (Currently Amended) An acoustic coding apparatus comprising:
a base layer coding section that encodes an input signal per base frame and obtains a base layer coded code;
a decoding section that decodes the base layer coded code and obtains a decoded signal;

a subtraction section that obtains a residual signal between the input signal and the decoded signal;

a frame division section that divides the residual signal into a plurality of residual signals in units of an enhancement frame having a shorter time length than the base frame; and

an enhancement layer coding section that encodes the plurality of residual signals and obtains an enhancement layer coded code; and

a multiplexing section that multiplexes the base layer coded code and the enhancement layer coded code to output a multiplexed code,

wherein the enhancement layer coding section comprises:

a frequency domain transform section that transforms the plurality of residual signals in the frequency domain and obtains a plurality of frequency domain transform coefficients represented on a two dimensional plane comprised of a time axis and a frequency axis;

a domain divider that divides the plurality of frequency domain transform coefficients into a plurality of domains on the two dimensional plane such that each domain includes at least a plurality of frequency domain transform coefficients which are grouped continuously along continuous in a time axis direction;

a quantization domain determining section that determines a part of the plurality of domains to be quantization targets based on power spectrum values of the frequency domain transform coefficients within each domain and outputs domain information showing the part of the plurality of domains; and

a quantization domain coding section that encodes the domain information and obtains the enhancement layer coded code.

22. (Currently Amended) An acoustic decoding apparatus comprising:

a demultiplexing section that demultiplexes a code coded by an acoustic coding apparatus into a base layer coded code and an enhancement layer coded code;

a base layer decoding section that decodes the a base layer coded code which is encoded at a coding side in predetermined base frame units and obtains a base layer signal; and

an enhancement layer decoding section that decodes the ~~an~~ enhancement layer coded code which is encoded at the coding side in units of an enhancement frame having a shorter time length than a base frame and obtains an enhancement layer signal;

wherein the enhancement layer decoding section comprises:

a domain divider that, on a two dimensional plane comprised of a time axis and a frequency axis, divides a plurality of frequency domain transform coefficients into a plurality of domains such that each domain includes at least a plurality of frequency transform coefficients which are grouped continuously along continuous in a time axis ~~direction;~~

a quantization domain determining section that decodes domain information showing domains which are quantization targets and determined based on power spectrum values of the frequency domain transform coefficients within each domain at the coding side and determines quantization target domains from the plurality of domains using the domain information; and

a transform coefficient decoding section that decodes the frequency domain transform coefficients included in the quantization target domains and obtains the enhancement layer signal.

23. (Previously Presented) The acoustic decoding apparatus according to claim 22, wherein the transform coefficient decoding section transforms the frequency domain transform coefficients in a time domain signal using an inverse modified discrete cosine transform.

24-29. (Canceled).

30. (Currently Amended) An acoustic coding method executed by a processor, the method comprising:

a base layer coding step of encoding an input signal per base frame and generating a base layer coded code in a base layer coding section;

a decoding step of decoding the base layer coded code and generating a decoded signal in a decoding section;

a subtracting step of generating a residual signal between the input signal and the decoded signal in a subtracting section; and

a frame division step of dividing the residual signal into a plurality of residual signals in units of an enhancement frame having a shorter time length than the base frame in a frame division section; and

an enhancement layer coding step of encoding the plurality of residual signals and generating an enhancement layer coded code in an enhancement layer coding section; and
a multiplexing step of multiplexing the base layer coded code and the enhancement layer coded code to output a multiplexed code in a multiplexing section,

wherein the enhancement layer coding step comprises:

a frequency domain transform step of transforming the a plurality of residual signals in the frequency domain and generating a plurality of frequency domain transform coefficients represented on a two dimensional plane comprised of a time axis and a frequency axis;

a domain division step of dividing the plurality of frequency domain transform coefficients into plurality of domains on the two dimensional plane such that each domain includes at least a plurality of frequency domain transform coefficients which are grouped continuously along continuous-in a time axis direction;

a quantization domain determining step of determining a part of the plurality of domains to be quantization targets based on power spectrum values of the frequency domain transform coefficients within each domain and outputting domain information showing the part of the plurality of domains; and

a quantization domain coding step of encoding the domain information and generating the enhancement layer coded code.

31. (Currently Amended) An acoustic decoding method executed by a processor, the method comprising:

a demultiplexing step of demultiplexing a code coded by an acoustic coding apparatus into a base layer coded code and an enhancement layer coded code in a demultiplexing section;

a base layer decoding step of decoding the a base layer coded code which is encoded at a coding side in predetermined base frame units and generating a base layer signal in a base layer decoding section; and

an enhancement layer decoding step of decoding the an enhancement layer coded code which is encoded at the coding side in units of an enhancement frame having a shorter time length than the base frame and generating an enhancement layer signal in an enhancement layer decoding section;

wherein the enhancement layer decoding step comprises:

a domain division step of, on a two dimensional plane comprised of a time axis and a frequency axis domain, dividing a plurality of frequency domain transform coefficients into a plurality of domains such that each domain includes at least a plurality of frequency domain transform coefficients which are grouped continuously along continuous in a time axis direction;

a quantization domain determining step of decoding domain information showing domains which are quantization targets and determined based on power spectrum values of the frequency domain transform coefficients within each domain at the coding side and determines quantization target domains from the plurality of domains using the domain information; and

a transform coefficient decoding step of decoding the frequency domain transform coefficients included in the quantization target domains and generating the enhancement layer signal.